

Global Change Science for Assessment: Discussion for the NCA

NCADAC Meeting

17 August 2011

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Science Needs

- Assessment report outline identifies a chapter for research needs
- Previous national assessments have had this as well
- This is a significant difference from the IPCC, which deliberately avoids such a chapter
- We want to explore some of the rationale for such a chapter, and outline a process by which we may proceed

Science Needs

- Key feature is that we should consider those science needs that are paramount for doing better assessments
- Not necessarily the same as the entire suite of recommendations that could be made for global change science and the USGCRP
- At the same time, there are certainly going to be a lot of common recommendations

Science Needs

- Will want to take existing recommendations from the NRC and others into account, e.g.:
 - Ramanathan Committee
 - America's Climate Choices
 - Warren Washington Committee
 - IGBP/WCRP/Diversitas/IHDP Communities and WMO Climate Services
 - Previous assessments
 - First and Second National Assessments
 - Millennium Ecosystem Assessment
 - IPCC Assessments
- Lessons learned from existing research programs, e.g.
 - RISA's
 - RPA analyses
- What we would have preferred to know for this assessment!

Science Needs

- Assessment is in many ways a use-inspired activity; not necessarily something we would do just for curiosity's sake
- This means that we may want to have research that investigates the degree to which the assessment process itself is useful
- A particular type of program evaluation, social-science investigation that is not focused on the global change science, but on how its results are used and evaluated

Science Needs

- If the NCA is going to assess the Nation's (or any region's) vulnerability, or the potential effectiveness of adaptation strategies, or the potential interaction between adaptation and mitigation, then...
 - This is a much more difficult problem than “just” increasing our understanding of the science – including the social sciences
 - It will require that we define clearly what it is we are going to assess (indicators?), how we are going to do the assessment, and how we will tell whether these features are increasing or decreasing over time.
 - It will also require that we have methods for taking human decisions about resources into account, including technology development and deployment, economics, institutions along with fundamental knowledge about physical system sensitivities

Science Needs

- How should we begin?
- Would like this to be interactive
 - Sector and Regional teams could help by preparing one page white papers on topics that they feel are currently hindering them – data, models, physical and natural sciences, social science understanding
 - We would like to get these soon so that we can begin laying out an outline and creating a set of lessons learned from current activities
 - Will likely need at least one or two iterations with Regions, Sectors and NCADAC
 - Identify what is currently in and what is currently not in the USGCRP research agenda

Science Needs

- Second major interaction needed is with the USGCRP agencies
- Did this in the first NCA
- Need to understand the relationship between what we write about in this chapter and agencies' plans and aspirations
- There may be more we would like to have than the agencies can do
- But we need to make sure that there is sufficient overlap among desires and capabilities and plans that our recommendations can be incorporated sensibly
- This would be directly responsive to the desire to see the NCA process become an institutionally permanent part of the USGCRP

Science Needs

- In a sense, summarizing and evaluating the literature and previous assessments is easy compared to the interactive nature of the chapter
- But at this point, we would like to stop and ask for feedback
 - Is our philosophy compatible with the NCADAC's thinking?
 - Is our approach sensible and do-able?
 - Are there major features of such a chapter that we've left out?

Science Needs

- From here:
 - Incorporate feedback from this discussion
 - Lay out a schedule and a first draft outline
 - Start the literature review
 - Work with Regional, Sectoral, Topical teams on their needs
 - Start discussions with agencies
 - Be clear about priorities for Federal and non-Federal partners, taking budget realities into account